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10/558,438	03/19/2007	Koon-Seok Lee	7950.046.00-US	6134

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EXAMINER
MITCHELL, DANIEL D

ART UNIT	PAPER NUMBER
2419	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Application No.	Applicant(s)
	10/558,438	LEE ET AL.
Office Action Summary	Examiner	Art Unit	
	DANIEL MITCHELL	2419	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on <u>06 February 2009</u>.

2a) ☒ This action is **FINAL.**   2b) ☐ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) <u>1-8; 10; 12-15; 17; 19-21</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) <u>1-8; 10; 12-15; 17; 19-21</u> is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☒ The drawing(s) filed on <u>29 November 2005</u> is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☒ All   b) ☐ Some * c) ☐ None of:

      1. ☐ Certified copies of the priority documents have been received.

      2. ☐ Certified copies of the priority documents have been received in Application No. _____.

      3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date <u>2/3/2009; 2/6/2009.</u>

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____

DETAILED ACTION

Response to Amendment

1.   Applicant's amendment filed on January 21, 2009 has been entered. Claims 1-7,

12-14, 19-20 have been amended. Claims 9, 11,16, 18, and 22 are canceled. Claims 1-

8, 10, 12-15, 17, and 19-21 are still pending in this application, with claims 1, 12 and 19

being independent.

Claim Objections

2.   Claims 2 and 6 recite limitations "adapted to" and "adapted for." Under MPEP

2106, page 2100-8, "language that suggests or makes optional but does not require

steps to be performed or does not limit a claim to a particular structure does not limit the

scope of a claim limitation. Appropriate action/correction should be made.

Claim Rejections - 35 USC § 103

3.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

4.   Claim 1-8, 12-15, 17, and 19-21 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Kudo et al. (US Publication No. 2003/0065824 A1), hereinafter

referred as Kudo in view of Rowett et al. (US Patent No. 6,366,583 B2), hereinafter

referred as Rowett.

Regarding claim 1, Kudo discloses a network system, comprising:

a first network **(fig. 1 and fig. 7 a first network including elements 101-104)**; a

second network separated from the first network **(element 200)**; an appliance

connectable to at least one of the first and second networks **(elements 102-104)**;

and a network manager **(element 101)** connectable to at least one of the first

and second networks, for controlling and monitoring the home appliance **(par. 21**

teaches element 101 controls element 102-104), wherein: the appliance and

the network manager each respectively comprise an interface **(par. 34 and fig. 7**

teaches a network controller 101 and appliance elements 102-107 having a

plurality of interfaces to the networks).

However Kudo does not expressly disclose the interface apparatus

comprises: a first interface module including a first universal

asynchronous receiver and transmitter; and a second interface module

including a second universal asynchronous receiver and transmitter

connected to the first universal asynchronous receiver.

Rowett discloses in **fig. 2** an interface apparatus **[element 52]** that

includes a first universal asynchronous receiver and transmitter (UART) and a

second UART. **Element 52** also teaches that the first UART is connected to the

second UART (see also **col. 4 lines 55-67**). The primary reference is modified

by the appliance **[fig. 7 appliance 113]** including a first UART interface to

network controller 101a and a UART interface to the IP network 200. Also

manager **[network controller 101a]** is modified as having a UART interface to

the network of element 113 and a another UART interface to the network 200.

Therefore, it would have been obvious to one of ordinary skill in the art at

the time of the invention to modify the teachings of Tanaka to include utilizing a

UART interface. One would be motivated as such in order to implement a cost

effective element that can efficiently convert and transfer data to different

networks **col. 1 line 51 to col. 2 line 4.**

Regarding claim 2, Kudo discloses wherein the first interface module is

based on a predetermined control protocol **(protocol IEEE 1394; see fig. 7 and**

par. 34); connectable to the first network **(first network includes elements 101-**

104, 113; see fig. 7 and par. 34); and adapted to transmit or receive for

transmitting/receiving a message to or from an inside control means **(par. 23**

teaches transmitting and receiving messages from a control module 405).

Regarding claim 3, Kudo discloses wherein the second interface module is

based on the predetermined control protocol **(IP network; see fig. 7 and par.**

34); connected to the first interface module; and connectable to the second

network **(fig. 7 teaches being connected to the IP network; see fig. 7 and**

par. 34).

Regarding claim 4, Kudo discloses wherein the appliance and the network manager are connected to each other through the first network by the first interface module **(fig. 7 and par. 34 teaches network controller 101 is connected to appliances 102-104, 113).**

Regarding claim 5, Kudo discloses in **par. 23** controllers and devices wherein the first and second interface each respectively comprise an application layer using the message **(application service interface)**, a network layer **(TCP/IP)**, a data link layer **(par. 2 discloses a LAN)** and a physical layer **(par. 5 discloses DSL lines used in the physical layer)** under the predetermined control protocol (1394 or IP),

However Kudo does not expressly discloses the data link layers each respectively comprise the universal asynchronous receiver and transmitter.

Rowett discloses in **fig. 2 an** interface apparatus **[element 52]** that includes a first universal asynchronous receiver and transmitter (UART) and a second UART to perform communication over the data link layer.

See similar motivation as claim 1.

Regarding claim 6, Kudo discloses wherein the first interface module is adapted to transmit or receive a message to/from to or from an inside control means **(par. 23 teaches a module 405 for transmitting and receiving**

messages); and the second interface module is based on a predetermined

control protocol **(fig. 7 and par. 34 teaches IP network)**; connected to the first

interface module **(fig. 4 teaches a module connected to a first network; see

also par. 23);** and connectable to the second network **(fig. 4 and par. 23**

teaches being connectable to a second network).

Regarding claim 7, Kudo discloses in **fig. 7** a network controller 101a and

appliance 113 with two interfaces wherein the first interface and second interface

comprise an application layer using the message **(application service**

interface), a network layer **(TCP/IP)** and a data link layer **(par. 2 discloses a**

LAN which utilizes the data link layer), and a physical layer **(par. 5 discloses**

DSL lines used in the physical layer).

Rowett discloses in **fig. 2 an** interface apparatus **[element 52]** that

includes a first universal asynchronous receiver and transmitter (UART)

connected to a second UART to perform communication over the data link layer.

See similar motivation as claim 1.

Regarding claim 8, Kudo discloses wherein the first network uses a

dedicated medium **(fig. 7 teaches a dedicated medium between the first**

network elements 101-104).

Regarding claim 10, Kudo discloses wherein the second network uses a shared medium **(fig. 7 teaches a shared medium in the second network which is the IP network)**.

Regarding claim 12, Kudo discloses an interface apparatus of a network system, comprising: a first interface module based on a predetermined control protocol **(par. 23 element 101 with an interface function with the AV network through IEEE 1394 protocol)** connectable to a first network connected to the network system **(AV network)**, for transmitting/receiving a message to/from a control means an appliance composing the network system **(par. 23 teaches the interface for communicating with elements in the network)**, and a second interface module based on the control protocol connected to the first interface module, disconnected from the first network, and connectable to a second network connected to the home network system **(fig. 4 and par. 23 teaches an element with an interface to an IP network and an interface to an AV network where the networks are disconnected from each other)**.

However Kudo does not expressly disclose wherein the first interface includes a first universal asynchronous receiver and transmitter; and wherein the second interface module includes a second universal asynchronous receiver and transmitter connected to the first universal asynchronous receiver and transmitter.

Rowett discloses in **fig. 2** an interface apparatus **[element 52]** that includes a first universal asynchronous receiver and transmitter (UART) and a second UART. **Element 52** also teaches that the first UART is connected to the second UART (see also **col. 4 lines 55-67**). The primary reference is modified by the appliance **[fig. 7 appliance 113]** including a first UART interface to network controller 101a and a UART interface to the IP network 200. Also manager **[network controller 101a]** is modified as having a UART interface to the network of element 113 and a another UART interface to the network 200.

See similar motivation as claim 1.

Regarding claim 13, Kudo discloses in **fig. 7 and par. 34** which is connected to the network system through the first interface module according to a communication method of the home network system **fig. 7 and par. 34 teaches a device that is connected to a first network through a first interface.**

Regarding claim 14, Kudo discloses **par. 23** wherein the first and second interface each respectively comprise an application layer using the message **(application service interface)**, a network layer **(TCP/IP)**, a data link layer **(par. 2 discloses a LAN)** and a physical layer **(par. 5 discloses DSL lines used in the physical layer)** under the control protocol.

However Kudo does not expressly discloses the data link layers each respectively comprise the universal asynchronous receiver and transmitter.

Rowett discloses in **fig. 2** an interface apparatus **[element 52]** that includes a first universal asynchronous receiver and transmitter (UART) and a second UART to perform communication over the data link layer.

See similar motivation as claim 1.

Regarding claim 15, Kudo discloses wherein the first network uses a dedicated medium **(fig. 7 teaches a dedicated medium between the first network elements 101-104)**.

Regarding claim 17, Kudo discloses wherein the second network uses a shared medium **(fig. 7 teaches a shared medium in the second network which is the IP network)**.

Regarding claim 19, Kudo discloses an interface apparatus of a network system, comprising: a first interface module for transmitting/receiving a message to/from a control means **fig. 4 element 405** an appliance composing the network system **par. 23 teaches a module for communicating a message with a network appliance**, and a second interface module based on a control protocol **(IEEE 1394 see par. 23)** connected to the first interface module **(fig. 4 teaches**

having an interface with the network) and connectable to a network connected

to the network system**(fig. 4 teaches having an interface with the network)**.

However Kudo does not expressly disclose wherein the first

interface includes a first universal asynchronous receiver and transmitter;

wherein the second interface module includes a second universal

asynchronous receiver and transmitter connected to the first universal

asynchronous receiver and transmitter.

Rowett discloses in **fig. 2** an interface apparatus **[element 52]** that

includes a first universal asynchronous receiver and transmitter (UART) and a

second UART. **Element 52** also teaches that the first UART is connected to the

second UART (see also **col. 4 lines 55-67)**. The primary reference is modified

by the appliance **[fig. 7 appliance 113]** including a first UART interface to

network controller 101a and a UART interface to the IP network 200. Also

manager **[network controller 101a]** is modified as having a UART interface to

the network of element 113 and a another UART interface to the network 200.

Therefore, it would have been obvious to one of ordinary skill in the art at

the time of the invention to modify the teachings of Tanaka to include utilizing a

UART interface. One would be motivated as such in order to implement a cost

effective element that can efficiently convert and transfer data to different

networks **col. 1 line 51 to col. 2 line 4.**

Regarding claim 20, Kudo discloses in **par. 23** wherein the first interface comprises an application layer using the message **(application service interface)**, a network layer **(TCP/IP)** and a data link layer under the control protocol **(par. 2 discloses a LAN)**, and the second interface comprises an application layer **(application service interface)**, a network layer **(TCP/IP)**, a data link layer **(par. 2 discloses a LAN)**, a physical layer **(par. 5 discloses DSL lines used in the physical layer)**.

Rowett discloses in **fig. 2 an** interface apparatus **[element 52]** that includes a first universal asynchronous receiver and transmitter (UART) and a second UART to perform communication over the data link layer of the primary reference.

See similar motivation as claim 1.

Regarding claim 21, Kudo discloses wherein the network uses a shared medium **(fig. 7 teaches a shared medium in the second network which is the IP network)**.

Response to Arguments

5.   Applicant's arguments with respect to claims 1-22 have been considered but are moot in view of the new ground(s) of rejection.

6.   Applicant's amendment necessitated the new ground(s) of rejection presented in

this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37

CFR 1.136(a).

        A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later

than SIX MONTHS from the date of this final action.

Conclusion

7.   Any response to this action should be **faxed** to (571) 173-8300 or **mailed** to:

                        Commissioner of Patents
                        P.O. Box 1450
                        Alexandria, VA 22313-1450

                        Hand delivered responses should be brought to:
                        Customer Service Window
                        Randolph Building
                        401 Dulany Street
                        Alexandria, VA 22314

        Any inquiry concerning this communication or earlier communications from the

examiner should be directed to DANIEL MITCHELL whose telephone number is

(571)270-5307. The examiner can normally be reached on Monday - Friday 8:00 am -

5:00 pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Chirag G. Shah can be reached on 571-272-3144. The fax phone number

for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/D. M./
Examiner, Art Unit 2419

/Chirag G Shah/
Supervisory Patent Examiner, Art Unit 2419